

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A ~~type of~~ measure device for cold cathode fluorescent lamps, ~~which said device~~ comprises:

~~High a~~ high frequency power source circuit; utilising AC power source;

~~Time a time~~ delay circuit; wherein, when the electronic ballast is working stably, ~~an that and~~ the cold cathode fluorescent lamps are in full brightness and stable, there is a pause before determining the electronic ballast's "on", "off" status; and the functioning time thus deferred is contingent upon the number, characteristic and quality of ~~the a~~ CCFL Cluster;

a DC power source circuit; wherein the output terminal's DC voltage supplies the CCFL Cluster, the protect circuit, and the time delay circuit, or internal, external power supply from other independent system;

the CCFL Cluster formed by joining multiple CCFL sets through parallel connection, each of said

CCFL set; comprises comprising HF HV capacitor, cold cathode fluorescent ~~lamp lamps~~, measure resistor, limit current resistor and photocoupler primary; ~~multiple CCFL sets are joined together by parallel connection to form a CCFL Cluster. To accommodate backlighting required by large LCD monitors, multiple clusters may be conjoined, characterised by serial connection of, wherein the HV capacitor, capacitors and cold cathode fluorescent lamp lamps and measure resistors; resistor are serially connected, the two terminals of the CCFL set are the connected to HF HV terminal, while the two terminals of the measure resistor are coupled in parallel connection with the two terminals formed by serial connection of the limit current resistor and photocoupler LED terminal; and~~

A protection ~~Protect~~ circuit: , wherein the photocoupler's two collect-emitter terminals are formed in serial connection to couple with the up and down limit comparators; so that when the up and down limit comparators send out signals, HF power source is cut off.

Claim 2 (currently amended): ~~The Per the measure device specified by Section 1 under the Scope of Claim,~~ according to claim 1, wherein the measure resistor of the CCFL set may be the a first and a second diode clusters; ~~while the first and second diode clusters consist may consists of one or multiple diodes, and that the disposed directions of the first and second diode clusters are opposite.~~

Claim 3 (currently amended): ~~The Per the measure device specified by Section 1 under the Scope of Claim,~~ according to claim 1, wherein the measure resistor of the CCFL set may be Zener diode.

Claim 4 (currently amended): ~~The Per the measure device specified by Section 1 under the Scope of Claim,~~ according to claim 1, wherein the two terminals of the measure resistor of the CCFL set parallel connect to the AC terminal of a bridge rectifier; the bridge rectifier's DC positive terminal connects to the limit current resistor and photocoupler LED terminal, then connects to the bridge rectifier's DC negative terminal; the power source supplying to photocoupler LED terminal still comes from the two terminals of the measure resistor.

Claim 5 (currently amended): ~~The Per the measure device specified by Section 4 under the Scope of Claim,~~ according to claim 4, wherein the measure resistor of the CCFL set may be a the first and a second diode clusters; ~~while the first and second diode clusters consist may consists of one or multiple diodes, and that the disposed directions of the first and second diode clusters are opposite.~~

Claim 6 (currently amended): ~~The Per the measure device specified by Section 4 under the Scope of Claim,~~ according to claim 4, wherein the measure resistor of the CCFL set

may be a ~~the~~ first and a second Zener diodes; and the disposed directions of the first and second Zener diodes are opposite.

Claim 7 (currently amended): ~~The Per the measure device specified by Section 1 under the Scope of Claim,~~ according to claim 1, wherein said measure device has two CCFL Clusters sharing a set of up and down limit comparators; and within each CCFL Cluster, all lamps are connected at one end to share a measure resistor; ~~After serial connecting the limit current resistor and the photocoupler are serially connected,~~ then parallel coupled with the measure resistor's two terminals, the photocoupler's emitter terminal is joined with a diode, and the diode's N terminal and grounding resistor are connected to the positive and negative terminals of the up, down limit comparators, while the two sets of measure resistor and limit current resistors are interconnected.

Claim 8 (currently amended): ~~The Per the measure device specified by Section 7 under the Scope of Claim,~~ according to claim 7, wherein the measure resistor of the CCFL set may be a ~~the~~ first and a second diode clusters; ~~while the first and second diode clusters consist~~ may consists of one or multiple diodes, and that the disposed directions of the first and the second diode clusters are opposite.

Claim 9 (currently amended): ~~The Per the measure device specified by Section 7 under the Scope of Claim,~~ according to claim 7, wherein the measure resistor of the CCFL set may be Zener diode.

Claim 10 (currently amended): ~~The Per the measure device specified by Section 7 under the Scope of Claim,~~ according to claim 7, wherein the two terminals of the measure resistor of the CCFL set parallel connect to the AC terminal of a bridge rectifier; the bridge rectifier's DC positive terminal connects to the limit current resistor and photocoupler LED terminal, then connects to the bridge rectifier's DC negative terminal; the power source supplying to photocoupler LED terminal still comes from the two terminals of the measure resistor.

Claim 11 (currently amended): ~~The Per the-measure device specified by Section 10 under the Scope of Claim, according to claim 10, wherein~~ the measure resistor of the CCFL set may be a the-first and a second diode clusters; ~~while the first and second diode clusters consist may consists~~ of one or multiple diodes, and that the disposed directions of the first and the second diode clusters are opposite.

Claim 12 (currently amended): ~~The Per the-measure device specified by Section 10 under the Scope of Claim, according to claim 10, wherein~~ the measure resistor of the CCFL set may be a the-first and a second Zener diodes; and the disposed directions of the first and the second diode clusters are opposite.

Claim 13 (currently amended): ~~The Per the-measure device specified by Section 2 under the Scope of Claim, according to claim 2, wherein~~ the photocoupler in the protect circuit is parallel connected; the collect-emitter terminal is coupled with negative resistor and diode, then connected to the up and down limit comparators, so that when the up and down limit comparators send out signals, HF power source is cut off.

Claim 14 (currently amended): ~~The Per the-measure device specified by Section 13 under the Scope of Claim, according to claim 13, wherein~~ the first and second diode clusters of the CCFL set may be replaced by a single diode, and may eliminate HV limit current resistor.

Claim 15 (currently amended): ~~The Per the-measure device specified by Section 4 under the Scope of Claim, according to claim 4, wherein~~ two CCFL sets share a bridge rectifier; the bridge rectifier's DC terminals are connected to the measure resistor; the bridge rectifier's DC positive terminal connects to the limit current resistor and photocoupler LED terminal, then connects to the bridge rectifier's DC negative terminal; the power source supplying to photocoupler LED terminal still comes from the two terminals of the measure resistor; the protect circuit's photocoupler may be single or multiple.

Claim 16 (currently amended): ~~The Per the~~ measure device ~~specified by Section 15~~
~~under the Scope of Claim, according to claim 15, wherein the protect circuit's~~
photocoupler is parallel connected, then connects to the up and down limit comparators,
so that when the up and down limit comparators send out signals, HF power source is cut
off.

Claim 17 (currently amended): ~~The A type of~~ measure device according to claim 1, per
~~any specification from Section 1 through 16 under the Scope of Claim,~~ wherein the high
frequency power source circuit is full-bridge type electronic ballast.

Claim 18 (currently amended): ~~The A type of~~ measure device according to claim 1, per
~~any specification from Section 1 through 16 under the Scope of Claim,~~ wherein the high
frequency power source circuit is half-bridge type electronic ballast.

Claim 19 (currently amended): ~~The A type of~~ measure device according to claim 1, per
~~any specification from Section 1 through 16 under the Scope of Claim,~~ wherein the
protect circuit's up, down limit comparator may be differential amplifier integrated
circuit.

Claim 20 (currently amended): ~~The A type of~~ measure device according to claim 1, per
~~any specification from Section 1 through 16 under the Scope of Claim,~~ wherein the
protect circuit's up, down limit comparator may be digital comparator integrated circuit.

Claim 21 (currently amended): A ~~type of~~ protective device for cold cathode fluorescent
lamp (CCFL), said device which comprises:

a CCFL Cluster formed by joining multiple CCTL sets through parallel
connection, each of said CCFL set comprising ~~consists of~~ HF HV capacitor, cold
cathode fluorescent ~~lamps~~ lamps, measure resistor, limit current resistor and photocoupler
primary; ~~multiple CCFL sets are joined together by parallel connection to form a CCFL~~
~~Cluster. To accommodate backlighting required by large LCD monitors, multiple~~
~~clusters may be conjoined, characterised by serial connection of, wherein the HV~~

~~capacitor, capacitors and cold cathode fluorescent lamp lamps~~ and measure resistor
~~resistors; the~~ are serially connected, two terminals of the CCFL set are ~~the~~ connected to
HF HV terminal, while the two terminals of the measure resistor are coupled in parallel
connection with the two terminals formed by serial connection of the limit current
resistor and photocoupler LED terminal; and

a protection ~~Protect~~ circuit; wherein the photocoupler's two collect-emitter
terminals are formed in serial connection to couple with the up and down limit
comparators; so that when the up and down limit comparators send out signals, HF
power source is cut off.

Claim 22 (currently amended): The ~~Per the~~ protective device according to claim 21,
wherein specified by Section 21 under the Scope of Claim, the measure resistor of the
CCFL set may be a ~~the~~ first and a second diode clusters; while the first and second diode
clusters may consist ~~consists~~ of one or multiple diodes, and that the disposed directions of
the first and second diode clusters are opposite.

Claim 23 (currently amended): The ~~Per the~~ protective device according to claim 21,
wherein specified by Section 21 under the Scope of Claim, the CCFL set's measure
resistor may be Zener diode.

Claim 24 (currently amended): The ~~Per the~~ protective device according to claim 21,
wherein specified by Section 21 under the Scope of Claim, the two terminals of the
measure resistor of the CCFL set parallel connect to the AC terminal of a bridge rectifier;
the bridge rectifier's DC positive terminal connects to the limit current resistor and
photocoupler LED terminal, then connects to the bridge rectifier's DC negative terminal;
the power source supplying to photocoupler LED terminal still comes from the two
terminals of the measure resistor.

Claim 25 (currently amended): The ~~Per the~~ protective device according to claim 24,
wherein specified by Section 24 under the Scope of Claim, the measure resistor of the
CCFL set may be a ~~the~~ first and a second diode clusters; while the first and second diode

clusters may consist ~~consists~~ of one or multiple diodes, and that the disposed directions of the first and second diode clusters are opposite.

Claim 26 (currently amended): The Per the protective device according to claim 24, ~~wherein specified by Section 24 under the Scope of Claim,~~ the measure resistor of the CCFL set may be a the first and a second Zener diodes; and the disposed directions of the first and second Zener diodes are opposite.

Claim 27 (currently amended): The Per the protective device according to claim 21, ~~wherein specified by Section 21 under the Scope of Claim,~~ two CCFL sets share a set of up and down limit comparators; and within each CCFL Cluster, all lamps are connected at one end to share a measure resistor; ~~After serial connecting the limit current resistor and the photocoupler~~ are serially connected, then parallel coupled with the measure resistor's two terminals, the photocoupler's emitter terminal is joined with a diode, and the diode's N terminal and grounding resistor are connected to the positive and negative terminals of the up, down limit comparators, while the two sets of measure resistor and limit current resistors are interconnected.

Claim 28 (currently amended): The Per the protective device according to claim 27, ~~wherein specified by Section 27 under the Scope of Claim,~~ the measure resistor of the CCFL set may be a the first and a second diode clusters; while the first and second diode clusters may consist ~~consists~~ of one or multiple diodes, and that the disposed directions of the first and second diode clusters are opposite.

Claim 29 (currently amended): The Per the protective device according to claim 27, ~~wherein specified by Section 27 under the Scope of Claim,~~ the CCFL set's measure resistor may be Zener diode.

Claim 30 (currently amended): The Per the protective device according to claim 27, ~~wherein specified by Section 27 under the Scope of Claim,~~ the two terminals of the measure resistor of the CCFL set parallel connect to the AC terminal of a bridge rectifier;

the bridge rectifier's DC positive terminal connects to the limit current resistor and photocoupler LED terminal, then connects to the bridge rectifier's DC negative terminal; the power source supplying to photocoupler LED terminal still comes from the two terminals of the measure resistor.

Claim 31 (currently amended): The Per the protective device according to claim 30,
wherein specified by Section 30 under the Scope of Claim, the measure resistor of the CCFL set may be a the first and a second diode clusters; while the first and second diode clusters may consist consists of one or multiple diodes, and that the disposed directions of the first and second diode clusters are opposite.

Claim 32 (currently amended): The Per the protective device according to claim 30,
wherein specified by Section 30 under the Scope of Claim, the measure resistor of the CCFL set may be a the first and second Zener diodes; and the disposed directions of the first and the second Zener diodes are opposite.

Claim 33 (currently amended): The Per the protective device according to claim 21,
wherein specified by Section 21 under the Scope of Claim, two CCFL or even numbers of CCFL Clusters share a set of up and down limit comparators; within each CCFL Cluster, all lamps are connected at one end to share a measure resistor; After serial connecting the limit current resistor with variable resistor and the photocoupler LED are serially connected, then parallel coupled with the measure resistor's two terminals, the variable resistor's mid point terminal is coupled with one end of the measure resistor, the photocoupler's emitter terminal is grounded, and the collect-emitter terminal connected to the up and down limit comparators.

Claim 34 (currently amended): The Per the protective device according to claim 21,
wherein specified by Section 21 under the Scope of Claim, two CCFL or even numbers of CCFL Clusters share a set of up and down limit comparators; and within each CCFL Cluster, all lamps are connected at one end to share a measure resistor; After serial connecting the limit current resistor with variable resistor and the photocoupler LED are

serially connected, then parallel coupled with the two terminals formed by serial connection of the measure resistor and the variable resistor, the variable resistor's mid point terminal is coupled with the middle of two limit current resistors, the photocoupler's emitter terminal is grounded, and the collect-emitter terminal connected to the up and down limit comparators.

Claim 35 (currently amended): The Per the protective device according to claim 22, ~~wherein specified by Section 22 under the Scope of Claim,~~ the protect circuit's photocoupler is parallel connected, the collect-emitter terminal couples with negative resistor and diode, then connects to the up and down limit comparators, so that when the up and down limit comparators send out signals, HF power source is off.

Claim 36 (currently amended): The Per the protective device according to claim 35, ~~wherein specified by Section 35 under the Scope of Claim,~~ the first and second diode clusters of the CCFL set may be replaced by a diode, and may eliminate HV limit current resistor.

Claim 37 (currently amended): The Per the protective device according to claim 24, ~~wherein specified by Section 24 under the Scope of Claim,~~ two CCFL sets share a bridge rectifier; the bridge rectifier's DC terminals are connected to the measure resistor; the bridge rectifier's DC positive terminal connects to the limit current resistor and photocoupler LED terminal, then connects to the bridge rectifier's DC negative terminal; the power source supplying to photocoupler LED terminal still comes from the two terminals of the measure resistor; the protect circuit's photocoupler may be single or multiple.

Claim 38 (currently amended): The Per the protective device according to claim 37, ~~wherein specified by Section 37 under the Scope of Claim,~~ the protect circuit's photocoupler is joined in parallel connection to the up and down limit comparators, so that when the up and down limit comparators send out signals, HF power source is cut off.

Claim 39 (currently amended): ~~The A-type of measure device~~ according to claim 21,
~~per any specification from Section 21 through 38 under the Scope of Claim,~~ wherein the
protect circuit's up, down limit comparator may be differential amplifier integrated
circuit.

Claim 40 (currently amended): ~~The A-type of measure device~~ according to claim 21,
~~per any specification from Section 21 through 38 under the Scope of Claim,~~ wherein the
protect circuit's up, down limit comparator may be digital comparator integrated circuit.